The Listing of the Claims

1. (Original) A method for determining tissue factor (TF) activity in a sample suspected to contain TF, comprising: (a) combining TF and a molar excess of factor VIIa (fVIIa) to produce a TF/fVIIa enzyme complex; and (b) detecting enzymatic activity of the complex using a fluorogenic or chromogenic substrate.

2. (Original) The method of claim 1, wherein the substrate is a compound of the formula: or a pharmaceutically acceptable non-toxic salts thereof; wherein R_1 is hydrogen, straight or branched chain lower alkyl having 1-6 carbon atoms optionally substituted with C_1-C_6 alkoxy, straight or branched chain alkenyl having 2-8 carbon atoms, straight or branched chain alkynyl having 2-8 carbon atoms, cycloalkyl having 3-7 carbon atoms, alkylcycloalkyl where the alkyl portion has 1-6 carbon atoms, cycloalkylakyl where the alkyl portion has 1-6 carbon atoms, or phenylalkyl where the alkyl portion is straight or branched chain alkyl having 1-6 carbon atoms, or a group of the formula R_5 represents hydrogen or an amino acid side chain; and R_4 is hydroxy, C_1-C_6 alkoxy, an amino acid or a peptide residue; R_2 is hydrogen, straight or branched chain lower alkyl having 1-6 carbon atoms, straight or branched chain alkenyl having 2-8 carbon atoms, straight or branched chain alkynyl having 2-8 carbon atoms, cycloalkyl having 3-7 carbon atoms, alkylcycloalkyl where the alkyl portion has 1-6 carbon atoms, or phenylalkyl where the alkyl portion is straight or branched chain alkyl having 1-6 carbon atoms, or a group of the formula R_5 represents hydrogen or an amino acid side chain; and R_4 is hydroxy, C_1-C_6 alkoxy, an amino acid or peptide residue; or NR_1R_2 forms a nitrogen heterocycle; and R_3 is an amino acid or a peptide residue.

3. (Original) The method of claim 1, where the substrate is a chromogenic substrate.

4. (Currently Amended) The method of claim 3, where the chromogenic substrate is ~~a para-Nitroaniline-based substrate~~ para-nitroaniline.

5. (Original) The method of claim 1, further comprising (c) generating a numerical value associated with the enzymatic activity of the sample and (d) comparing the numerical value with a standard curve of TF-dependent enzymatic activity.

6. (Original) The method of claim 5, wherein the standard curve is generated by quantifying TF-dependent enzymatic activity of the TF/fVIIa complex in samples with known concentrations of TF.

7. (Original) The method of claim 6, wherein the TF is native human tissue factor.

8. (Original) The method of claim 6, wherein TF source is brain tissue, placenta, endothelial cells, tissue extract, plasma, cell extract, synthetic or naturally derived thromboplastin, or recombinant human tissue factor.

9. (Original) The method of claim 6, wherein the fVIIa is native human factor VIIa or recombinant factor VIIa.

10. (Original) The method of claim 6, wherein the TF and the fVIIa are not of human origin.

11. (Original) The method of claim 6, wherein the concentration of TF is from 0.1 pM to 1 mM.

12. (Original) The method of claim 6, wherein the reaction mixture contains divalent metal ion or a metal ion chelator.

13. (Original) The method of claim 12, wherein the divalent metal ion is calcium ion, magnesium ion or manganese ion.

14.(Original) The method of claim 12, wherein the metal ion chelator is ethylenediamimetetraacetic acid (EDTA) or ethylene glycol-bis(2-aminoethylether)-N,N,N',N'-tetraacetic acid (EGTA).

15. – 29. (Canceled)